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## ABSTRACT

This paper presents information to assist in the planning and development of policy related to the education of very young children with disabilities. The paper first considers research-supported reasons for providing early childhood intervention services based on effectiveness data from many sources. Subsequent sections examine: (1) characteristics of the children needing services, with attention to children identified at birth, children at "biological risk" due to their prenatal status, and children at "environmental risk" due to their family or home circumstances; (2) types of developmental problems frequently encountered and the various terms used to label these problems; (3) types of services and delivery systems; and (4) implications for policy makers and practitioners, including accepted "best practices." An appendix lists seven organizational resources for information on early childhood policies and programs. (20 references) (DB)

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Early Childhood Intervention Program

## POLICY AND PRACTICE IN EARLY CHILDHOOD

### SPECIAL EDUCATION SERIES<sup>1</sup>

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## PROVIDING EFFECTIVE EARLY INTERVENTION SERVICES: WHY AND HOW?

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## **PROVIDING EFFECTIVE EARLY INTERVENTION SERVICES: WHY AND HOW?**

Policy decisions are affected, in part, by current conditions, but also by the nature of the information available to policy-makers during the planning process. While there are clearly partisan elements in any decision that is rendered, our hope is that decisions related to early childhood intervention will be based in large part on the most current research and information available to the field of special education. We believe that the nature and quality of services provided to young children with disabilities and their families will be directly affected by the quality of the information parents and professionals possess as they plan, develop, implement, and evaluate educational policies. The purpose of this paper is to provide current information to assist those who must plan and develop policy related to the education of very young children with disabilities.

### **Why provide early childhood intervention services?**

Over 50 years of research on children with many types of disabilities receiving a range of specialized services in many different settings has produced evidence that early intervention can: (1) ameliorate, and in some cases, prevent developmental problems; (2) result in fewer children being retained in later grades; (3) reduce educational costs to school programs; and (4) improve the quality of parent, child, and family relationships (Smith & Strain, 1988). Much of what we know about early intervention effectiveness is drawn from this diverse historical base of information.

More recently, researchers have begun asking a more rigorous and differentiated question: For whom and under what conditions is early childhood intervention most effective? This more sophisticated question focuses on the effects of various

interventions for specific groups of children relative to the type of program they received. Data from well-controlled research studies indicate that young children with handicaps (e.g., Down Syndrome, autism, cerebral palsy, sensory impairments), and those who evidence biological (e.g., low birth weight, premature) and environmental risk factors make significant gains on both qualitative and quantitative measures of development when provided appropriate services. The involvement of their parents in reinforcing critical skills in natural contexts is an important factor associated with the magnitude of the child's progress (Bailey & Bricker, 1985; Guralnick, 1989; Lovaas, 1980; Ramey, Bryant, Sparling, & Wasik, 1985; Schweinhart, Berrueta-Clement, Barnett, Epstein, & Weikart, 1985; Strain, 1987).

In addition to encouraging parent involvement, data from these investigations and other program demonstration efforts reveal that the most effective interventions are those that also: (1) occur early in the child's life, (2) operate from a more structured and systematic instructional base, (3) prescriptively address each child's assessed needs, and (4) include normally developing children as models. Programs with these characteristics produce the most reliable, significant, and stable results in child and family functioning.

Thus, there is sufficient scientific evidence to justify the need for and provision of well-designed early childhood intervention services. Undergirding the scientific rationale is a broad base of public policies that provide both legislative and fiscal support for services to children and families. Special education policy developments at the federal level over the past 30 years have also created a basis for developing

new and expanded services for preschool-age children with handicapping conditions. Section 619 of Part B of the Education of the Handicapped Act (EHA), as amended by P.L. 99-457, provides incentives to states to serve preschool children with disabilities. Formula appropriations for this program continue to grow on an annual basis (see Table 1). These appropriations are available to those states that have policies and procedures that ensure the availability of a free, appropriate, public education (FAPE) for all handicapped children ages 3 through 5 years of age by 1991 (Trohanis, 1989). In addition to federal law, approximately two thirds of the states have their own state laws requiring services to preschool children with disabilities. Coupled with the efficacy research cited above, these are compelling justifications for state and local agencies to pursue the development and/or expansion of early childhood intervention services.

#### Who are the children needing services?

In 1989, public schools reported that they served over 300,000 children with handicapping conditions between three and five years of age (U.S. Department of Education, 1990). In addition, states reported that up to 5.6% of all preschool-age children in the state were identified as receiving early intervention. The population of preschool age children with handicaps is diverse and their eligibility for service presents a range of challenges to those involved in designing programs and services.

Children enrolling in public school preschool special education programs may or may not have received intervention services as an infant or toddler. Public school programs may be enrolling children who are transitioning from an infant intervention

program and who bring with them a prior history of assessments and intervention plans. Current multidisciplinary team evaluation data will be needed to determine the child's current needs and abilities, and which intervention services will be required to meet those assessed needs. Other children will be newcomers to the special education service delivery system, having recently been identified by regular preschools, daycare centers, parents, or the family physician as evidencing delayed development in need of intervention services. These children, as well, should receive a comprehensive multidisciplinary team evaluation prior to program planning.

Regardless of the point of origin, public schools are faced with the task of determining which preschool-age children will require what type of services, in which settings, and from whom. It may be useful to revisit the nature of these children's handicapping conditions as a basis for understanding the necessity of developing a continuum of intervention services.

One group of children is likely to have been identified at or shortly after birth because of the nature of their handicapping condition. These are children with chromosomal, metabolic, or neuromuscular disorders; disorders secondary to congenital infections; sensory difficulties; severe social-emotional disorders such as autism; and severe toxic exposure, such as fetal alcohol syndrome (Shonkoff & Meisels, in press). While these children are in many ways the easiest to identify, their conditions are relatively infrequent. Consequently, they represent a small proportion of those who will enroll in public school preschool programs. These children are likely to evidence multiple needs across a number of developmental areas. Relative to peers

with milder handicapping conditions, these children will often require more intensive services.

A far greater number of children evidence significant developmental delays or atypical patterns of development that may or may not have a specific diagnosis. The reasons for their delays are, in many ways, less important than the fact that such delays exist and that intervention services are needed in order to ameliorate or prevent longer-term learning problems. These children may require less intensive support services in order to benefit from the typical preschool curriculum.

There are two additional groups of children whose pediatric history, family situations, and/or current circumstances present factors that do not invariably lead to delayed development, but have been shown to increase the probability of the children experiencing future developmental and learning problems. The first of these involves children whose prenatal status was affected by such factors as interuterine infections, mother's reproductive immaturity, low birth weight, and maternal substance abuse during pregnancy. Such children are often referred to as those who are at "biological risk". The second group of children are those whose caregiving circumstances, current family situation, or pediatric history place them at "environmental risk" for future developmental delays. These factors include abusive home environments, extreme poverty, parental retardation, maternal mental illness, and parental substance abuse (Shonkoff & Meisels, in press; Tjossem, 1976). As with the first group, these factors do not invariably lead to developmental learning problems but their presence has been shown to play a significant role in the future development of young children

and the need for intervention services.

These latter two groups of children, while not eligible under the P.L. 99-457 preschool program because they do not meet the federal definition of "handicapped", should be monitored and may require supportive resources (e.g., therapy, consultant teacher services) in order to optimally benefit from mainstream situations and to help prevent later school failure. Such services could be provided using state or local resources. In addition, the families of the children who are at "biological" and "environmental" risk often require substantial support because of the myriad of complex and interrelated needs that affect the development of their children. These families often require monitoring, support, information, referral, and/or intensive intervention. Consequently, planners may want to consider these realities as they examine more traditional conceptions of roles and responsibilities for professional staff.

#### What kinds of developmental problems do we see?

We most often talk about children's development in terms of major developmental areas such as communication, social, affective, cognitive, self-care, and motor development. Problems in some of these areas are apparent at birth, while others develop slowly over time. For children in this latter group, parents, rather than physicians, are most often the ones to spot delayed development.

Some children evidence delays which are not perceptible to the lay observer. These children may experience difficulties processing information, retrieving thoughts, constructing sentences, or understanding basic concepts. Others may have hearing

impairments that interfere with their ability to acquire and understand language. Still others may evidence problems picking up small objects or coordinating what they see or think with what they would like to say or do.

There are other children whose developmental problems are more obvious. Some children are visually impaired, while others need assistance to move (walkers, canes, wheelchairs), require help in selfcare activities, rely on electronic devices to communicate, and/or experience significant problems relating to others.

It is important to recognize that there are a range of abilities within this population and that the needs of children change over time: some diminish, some increase. This fact becomes important when the issue of labeling is addressed. There are significant dangers in placing a categorical label on children of any age, but particularly on those under the age of five (Smith & Schakel, 1986). Labels are fundamentally an administrative mechanism and carry with them information that is of little value to educators or therapists. Programmatic information derives from professional assessments and interactions with the child. Consequently, because labels are of minimal educational value, and early childhood intervention services can alter the nature of the child's needs over time, we believe administrators should consider more creative ways of identifying and monitoring children with disabilities that will enhance, rather than hamper, their educational well-being. Some programs use terms such as "children who are developmentally delayed", "children with exceptional educational needs", "children with special educational needs", and "children who are identified" as mechanisms for tracking the whereabouts of these

students (Ziegler, 1989).

**What type of services are needed?**

The amount and type of intervention a child will need depends on the assessed needs of the child and family at any given point in time. Help comes in many ways but it may be useful to look at it in terms of services, people, and settings (See Appendix A for additional resource information.)

Children with identified handicaps, developmental delays, and at-risk conditions receive a range of services from a variety of professionals in many different settings. They may receive special education services for all or part of the day and this assistance may be direct (e.g., individual or group instruction) and/or indirect (e.g., consultation with another professional who is working with the child). Related services may also be necessary and are most often provided by speech/language, occupational, and physical therapists, either directly to the child or indirectly through consultation with the special or regular education staff or parent. Depending upon the service delivery model selected, direct services may be provided exclusively by certified and licensed professionals, or in conjunction with trained paraprofessional staff. Information from parents and others having direct and continuing contact with the child should be incorporated in a meaningful manner into the diagnostic and program planning process.

While many state and local agencies are still grappling with the issue of what kind of service delivery models they will endorse, it is clear that the special education and related services needs of young children with identified or at-risk conditions can

be appropriately met in settings that include normally developing children (e.g., daycare, typical preschools, Head Start, regular classrooms) (Guralnick, 1990; Hanson & Hanline, 1989; Tempelman, Fredericks, & Udell, 1989; Strain, 1983). Integrated settings have, in fact, been found to produce higher proportions, rates, and levels of social, cognitive, and linguistic skills in children with disabilities than segregated settings (Brinker, 1985; Brinker & Thorpe, 1984; Guralnick, 1990).

**What are the implications for policy makers and practitioners?**

The efficacy research and policy developments cited above, as well as data from demonstration projects throughout the country, indicate that early intervention services should be provided and that exemplary early childhood intervention programs are characterized by certain "best practices". These features tend to be correlated with optimal child and parent/family outcome data. In addition to those program characteristics cited earlier (e.g., beginning at earliest age possible, involving parents, and providing instruction systematically), McDonnell and Hardman (1988) suggest that the following be included:

- (a) integrated placement and instruction,
- (b) comprehensive services and well-defined instruction with typical children,
- (c) instructional practices that are age-appropriate and focused on maximizing the independence of the child and the family,
- (d) prescriptive and flexible service delivery models that account for unique and changing child and family needs,

- (e) curriculum content that is functional and related to the child, and his/her peers, family, and community, and
- (f) outcome-based practices that include transition planning.

For many policy-makers and practitioners, attainment of these "best practices" will require a change in current thinking, a re-evaluation of present practices, the development of comprehensive plan for systems change, and the identification of resources to assist in implementing those changes. None of this, however, will occur without a commitment to effective early childhood intervention services. It is our hope that we have provided sufficient evidence to support such a commitment. Subsequent papers in the POLICY AND PRACTICE series of the Research Institute on Preschool Mainstreaming will be focused on the examination of "best practices" and their relationship to policy and practice in early childhood programs.

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**Table 1. Growth in the preschool grant program**

| Fiscal Year | Appropriated* | # of Children Served |
|-------------|---------------|----------------------|
| 1977        | \$12.5        | 197,000              |
| 1978        | \$15.0        | 201,000              |
| 1979        | \$17.0        | 215,000              |
| 1980        | \$25.0        | 232,000              |
| 1981        | \$25.0        | 237,000              |
| 1982        | \$24.0        | 228,000              |
| 1983        | \$25.0        | 242,000              |
| 1984        | \$26.33       | 253,000              |
| 1985        | \$29.0        | 259,000              |
| 1986        | \$28.71       | 261,008              |
| 1987        | \$180.0       | 265,783              |
| 1988        | \$201.05      | 288,301              |
| 1989        | \$247.0       | 320,841              |

\* in millions of dollars

## APPENDIX A

### Resources for Information on Early

### Childhood Policies and Programs

Council for Administrators in Special Education (CASE)  
of the Council for Exceptional Children  
615 16th Street, NW  
Albuquerque, NM 87104  
(505) 243-7622

The Division for Early Childhood (DEC)  
of the Council for Exceptional Children  
1920 Association Drive  
Reston, VA 22091  
(703) 620-3660

National Head Start Resource Access Program  
Administration for Children, Youth and Families  
Office of Human Development Services  
U.S. Department of Health and Human Services  
P.O. Box 1182  
Washington, DC 20013  
(202) 245-0562

National Association for the Education of Young Children (NAEYC)  
1834 Connecticut Avenue, NW  
Washington, DC 20009-5786  
(800) 424-2460

National Association of State Directors of Special Education (NASDSE)  
1800 Diagonal Road, Suite 320  
King Street Station 1  
Alexandria, VA 22314  
(703) 519-3800

National Early Childhood Technical Assistance System (NEC-TAS)  
Suite 500  
NCNB Plaza  
Chapel Hill, NC 27514  
(919) 962-2001

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Early Childhood Branch  
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